



NSF Graduate Research Internship Program (GRIP)

NSF Graduate Research Fellowship Program (GRFP)

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www.nsfgrfp.org



Why NSF Graduate Research Fellows and NOAA?

- High quality graduate students (US citizens, nationals, perm. residents) selected by an independent national competitive process
- Pursuing research-based MS/PhD in STEM fields at U.S. institutions
- Fellowship support gives Fellows greater independence: time and freedom to do their own research
- Fellows more likely than other graduate students to be engaged in research and development as a primary work activity in their careers
- **Workforce development:** Agency can establish connections with Fellows at an early stage of their careers



What is the GRFP? Goals and Key Elements

- To select, recognize, and financially support individuals early in their careers with the demonstrated potential to be high achieving scientists and engineers
- To broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans

Five Year Award to individual students – \$138,000

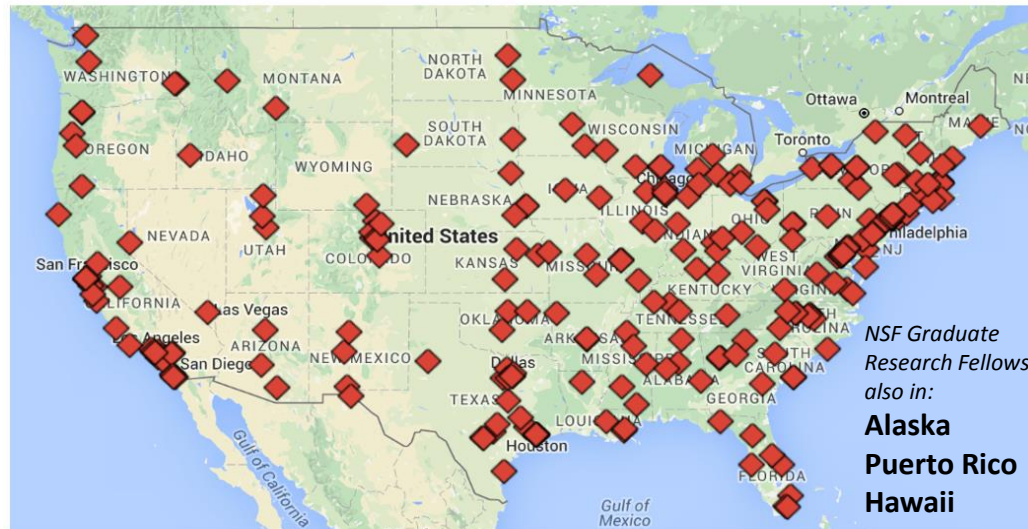
- Three years of financial support
 - \$34,000 Stipend per year
 - \$12,000 Educational allowance to institution
- **2010 - 2016:** 2,000 Fellowships each year
 - 2016: 16,000 Applications - ~12.5% success rate





GRFP Reach

***~ 8,000 NSF Graduate Research Fellows
are from 488 baccalaureate institutions and conduct research
towards their master's or doctoral degree
at 220 graduate schools***

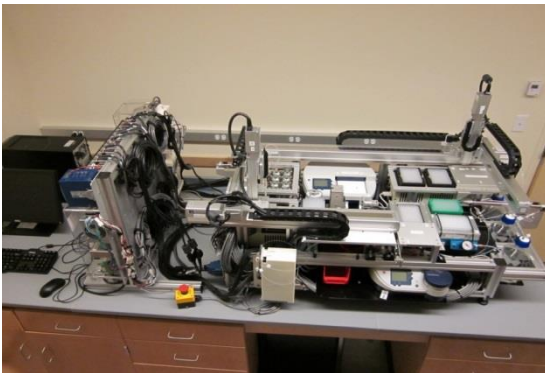


- NSF GRFP impacts every state and territory of the U.S.



GRFP Successes

- 50,000 Fellows
 - 42 Nobel Laureates
 - 450 Members of the National Academy of Sciences
- Higher Ph.D. completion rates
 - Greater % of women and URM than national population of PhD completers

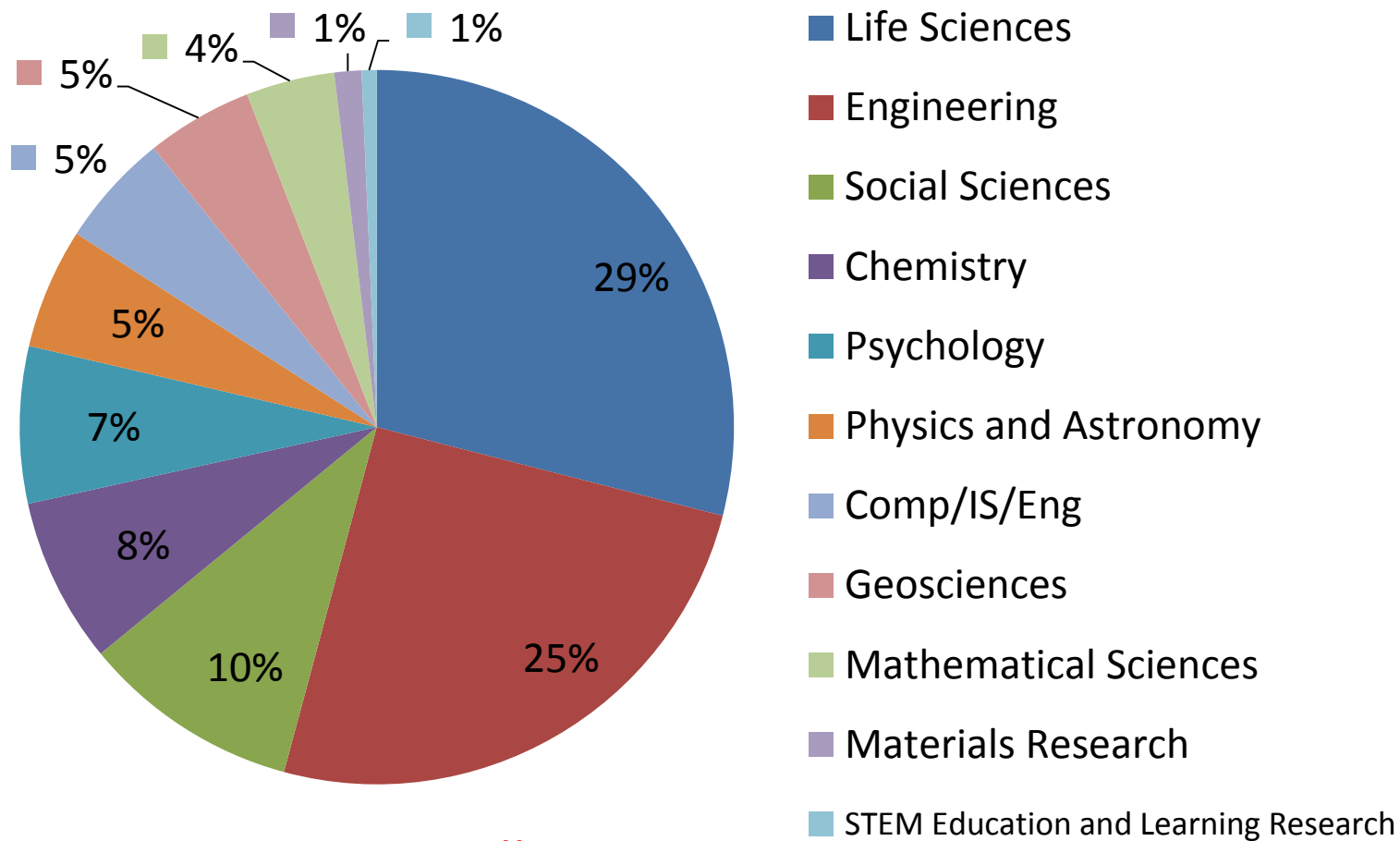


The Multiplex Automated Genome Engineering (MAGE) platform.
Credit: Harris Wang, PhD, Harvard University





Fields of Study of Current Fellows



8,000 Active Fellows



NOAA-related activities

Key Words:

- Risk – 220 Fellows (76 in the social sciences)
- Ocean – 147 Fellows
- Adaptation – 101 Fellows
- Coast – 61 Fellows
- Resilience – 45 Fellows

Examples of Fellows' research key words using Risk:

- coral reefs, resilience, social-ecological, Fiji
- marine ecology, biodiversity-ecosystem function relationships, rockfish recruitment, kelp forest
- migration, heterogeneity, common pool resource management, fisheries, social networks, Baja California



GRFP Diversity



NSF Graduate Research Fellow

Tonya N. Williams

- NSF Fellow at North Carolina (Fiber and Polymer Science Program)
- Her interest in chemistry, color and their applications, paired with an awareness of the toxicological profile of various colorants, has motivated her to pursue a career in green chemistry.
- She is focusing on designing environmentally benign hair colorants.

Credit: Amanda Padbury, North Carolina State University College of Textiles

Demographics of current Fellows

Women	53%	URM	25%
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**Discovery:
Celebrating Black History Month
with our NSF Fellows**

http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=137630



GRFP Interns

NSF Graduate Research Fellow & Graduate Research Intern (NOAA)

Emma Fuller

- NSF Fellow at Princeton (Ecology and Evolutionary Biology)
- GRIP Fellow in Conservation Biology Division of the Northwest Fisheries Science Center (NWFSC) (6 months in 2016):
- Topic: ecological causes and social consequences of alternative fishing strategies on the US West Coast (host: J. Samhoury)

“What’s particularly exciting about this opportunity is that represents, almost completely, the type of work I hope to do as a career: it uses big data to examine the interaction between people and the environment and consider implications for natural resource management and conservation. Further, this opportunity gives me a chance to experience what research is like in a government setting, helping me to make informed decisions about future job prospects.”

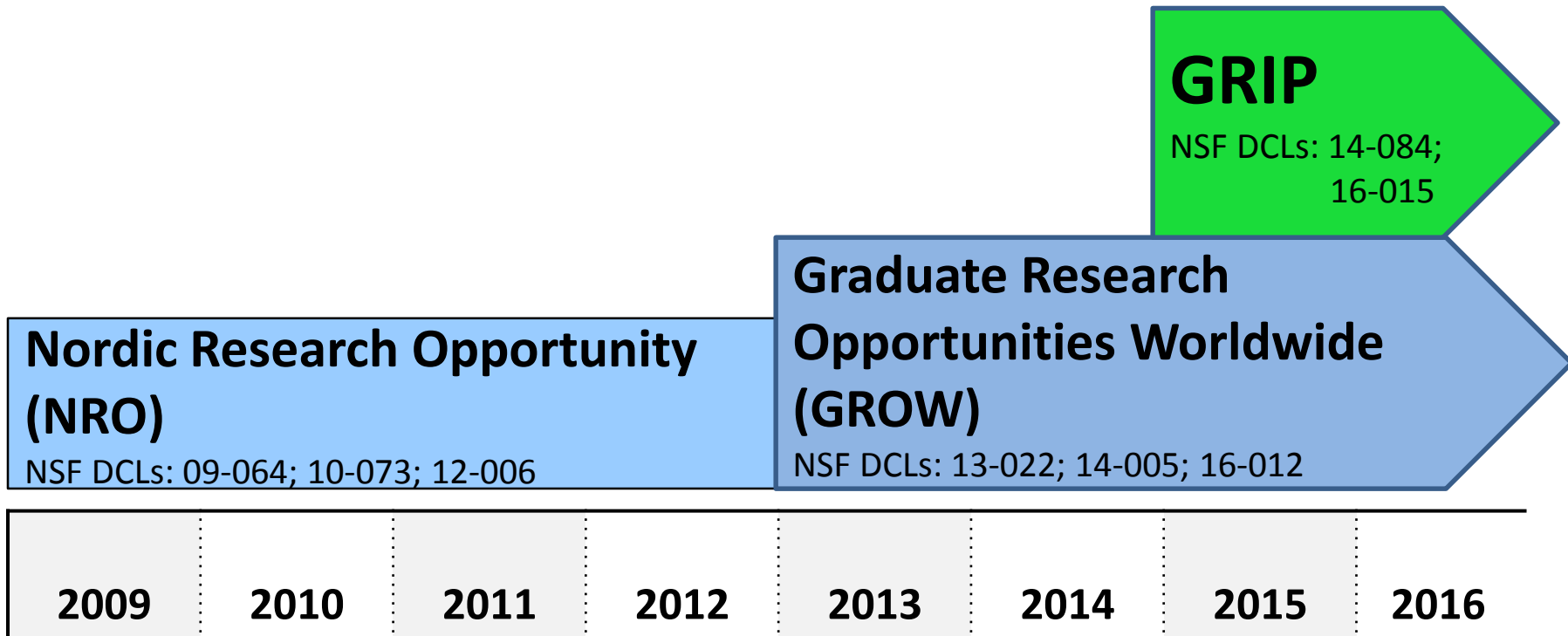


Graduate Research Internship Program (GRIP)

- GRIP provides **GRFP Fellows** with opportunities to develop their professional skills and networks
- Fellows conduct mission-related, collaborative research projects at federal facilities and national laboratories
- Pilot program
 - FY2014: Program and partnership development
 - FY2015: 25 Internships (\$125,000); develop new partnerships
 - FY2016: 75 Internships (\$375,000)
- GRIP has launched!!! www.nsf.gov/grip
- PD: Erick Jones ejones@nsf.gov



Professional Development for NSF Fellows



Benefits of Agency-GRFP Collaboration

NSF and Agency GRIP partnership	Agency	Fellow GRIP Intern
<ul style="list-style-type: none"> • Prepare and engage a diverse STEM workforce motivated to participate at the frontiers by providing authentic research experiences • Build the capacity of the nation's citizenry for addressing societal challenges through projects that address national needs 	<ul style="list-style-type: none"> • Engage high-quality graduate students in basic and applied research projects; conduct Agency-related research • Attract students to Agency careers by engaging them in projects in areas of national needs • Public outreach for Agency 	<ul style="list-style-type: none"> • Access to research collaborators, facilities and resources • Authentic career experiences • Exposure to career opportunities in federal agencies, for self and for others • Develop transferable skills, career coaching, mentoring, project management and teamwork



GRIP Announcement

Due Dates

Dec 4 and May 6

NSF 16-015

**Dear Colleague Letter: NSF Graduate Research
Internship Program (GRIP)**

www.nsf.gov/grip

